| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/982,236 | 10/19/2001 | Eric Gaussier | 07447.0061 (XeroxRef.No. | 7611 |

7590        12/02/2004

Finnegan, Henderson, Farabow
Garrett & Dunner, L.L.P.
1300 I St., N.W.
Washington, DC  20005-3315

| EXAMINER |
|---|
| NGUYEN, CAM LINH T |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2161 | |

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
| **Office Action Summary** | 09/982,236 | GAUSSIER ET AL. |
| | Examiner | Art Unit | |
| | CamLinh Nguyen | 2161 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>28 June 2004</u>.

2a)☒ This action is **FINAL**.  2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

# DETAILED ACTION

## *Response to Amendment*

1.      Applicant's amendments to claims 1 – 23 are acknowledged. Consequently, claims 1 – 23

are currently pending.

## *Claim Rejections - 35 USC § 102*

1.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.      Claims 1, 8, 10, 12 – 16, 20 – 23, are rejected under 35 U.S.C. 102(b) as being

anticipated by Francis et al (U.S. 5,761,418).

◆ As per claim 1, 8, 10, 12 – 16, 20 – 23,

Francis et al (U.S. 5,761,418) discloses a method for clustering a plurality of documents (See

Fig. 1, documents a –k, col. 9, lines 1 – 6) in a hierarchical data structure (See Fig. 5) comprised

of a plurality of clusters (see Fig. 1, clusters A – C), wherein each document includes a plurality

of words (col. 7, lines 15 – 16), the method comprising:

-    " Accessing the document collection" See Fig. 2, fig. 15, element 1540, col. 8, lines 13 –

     25.

-    " Performing a clustering process that creates a hierarchy of clusters that reflects a

     segregation of the documents in the collection based on the words included in the

     documents" See Fig. 1, col. 7, lines 4 – 31. The resources are linked to each other by a

     path or links. In other words, the first resource links to second, and the second resource

can link to third resource by its terms as shown in Fig. 5. The Fig. 5 shows searching

branching out within the clusters (col. 13, lines 45 – 51). Clearly, this is a hierarchical

structure of the clusters.

-   " Wherein any document in the collection may be assigned to a first cluster in the

hierarchy based on a first segment of the respective document, and the respective

document may be assigned to a second cluster in the hierarchy based on a second

segment of the respective document" See Fig. 1, col. 6, lines 59 – 62, col. 7, lines 10 –

12.

-   " Wherein the first and second clusters are associated with different paths of the

hierarchy" See Fig. 5.

-   " Storing a representation of the hierarchy of clusters in a memory" See Fig. 15, col. 8,

lines 13 – 25.

-   " Making the representation available to an entity in response to a request associated with

the document collection" See Fig. 4, 6, col. 5, lines 42 – 53.

### *Claim Rejections - 35 USC § 103*

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.      This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.        Claims 2 – 7, 9, 11, 17 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Francis et al (U.S. 5,761,418) in view of Agrawal et al (U.S. 6,233,575).

◆ As per claim 2, 9, 11, 17 - 18,

Francis discloses a method for clustering a plurality of documents based on keywords. Francis

does not clearly disclose that setting a probability parameter to an initial value, and assign

documents to a cluster based on the value.

However, Agrawal, on the other hand, discloses a multilevel taxonomy based on features derived

from documents classification using fisher values as discrimination value (see the title). Agrawal

teaches that the clusters can be regarded as classes (col. 7, lines 64). As shown in Fig. 2 of

Agrawal, there are plurality of classes represented by nodes (col. 10, lines 59 – 65). Documents

are classified to nodes by calculating the statistics of the terms in the documents (col. 10, lines 66

– col. 11, lines 2). Classification of a document starts at the taxonomy root by assigning a score

to each child of the root. (Col. 14, lines 50 – 53). Therefore,

- "A first class" corresponds to the root.

- Each node or sub node corresponds to a parameter with a certain value.

It would have been obvious to one with ordinary skill in the art at the time the invention was

made to apply the teaching of Agrawal into the system of Francis because the combination

would provide a scalable, efficient, reliable, and semi automatic organization and reorganization

of a database (col. 4, lines 30 – 34, Agrawal).

♦ As per claim 3, 19,

- " Determining whether the first class has split into two child classes" See Fig. 2, element

    22 (first class), element 24 – 28 (child classes) (col. 9, lines 50 – 67, Agrawal).

♦ As per claim 4,

- " Repeating the step of determining for each document in the collection" See Fig. 4, col.

    18, lines 17 – 20, Agrawal.

♦ As per claim 5 – 7

- " Performing the clustering process" col. 14, lines 33 – col. 18, lines 27, Agrawal.

### *Response to Arguments*

2.      Applicant's arguments filed 06/28/2004 have been fully considered but they are not

persuasive.

Applicant argues that Francis reference fails to teach a hierarchical data structure comprised of a

plurality of clusters, and storing a representation of the hierarchy of clusters in a memory. The

Examiner respectfully disagrees.

Referring to Fig. 5, Francis discloses a hierarchical data structure of terms. Documents

are organized by terms in order to search for documents (col. 9, lines 64 – col. 10, lines 9).

Therefore, the documents are organized in a hierarchical data structure. Francis also discloses a

memory to store the representation of the hierarchy of clusters in a memory (See Fig. 13).

Therefore, Francis clearly discloses the claims limitations.

*Conclusion*

3.    **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.    The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

  - Ruocco et al (U.S. 5,864,855) discloses a parallel document clustering process.

  - Aoki et al (U.S. 6,078,913) discloses a document retrieval apparatus.

  - Vaithyanathan et al (U.S. 5,819,258) discloses a method for automatically generating

    hierarchically categories from large document collections.

  - Frederick Herz (U.S. 6,460,036) discloses a system and method for providing customized

    electronic newspapers and target advertisements.

  - Hajime Takano (U.S. 5,983,246) discloses a distributed document classifying system for

    document classifying.

- Rennison et al (U.S. 6,154,213) discloses an immersive movement-based interaction with large complex information structures.
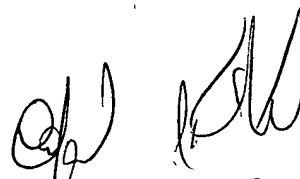
7.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to CamLinh Nguyen whose telephone number is (571) 272-4024. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN

ALFORD KINDRED
PRIMARY EXAMINER